
# SPECTRUM ACCESS

## Warfighters need bandwidth for command & control

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PENTAGON —As emerging technology spreads globally, competition increases among nations, industry and government organizations for wireless access. Not only does it fuel many economies, but it's also the heart and soul of military capabilities that use spectrum dependent equipment in joint operations.

Joint efforts between the services field results that cannot be achieved independently, and spectrum access provides the gateway to success. It's needed for battlespace awareness, command and control, force application, focused logistics, force protection and force management.

As the Deputy J6 stated in testimony to the House Armed Services Committee, **"Information superiority is a must, and frequency spectrum management is paramount in this regard. Without assured spectrum access, current and future technologies will not have the strategic and tactical bandwidth to pass critical information."**

The increasing need and dependency on spectrum silently grows behind military jobs involving planning, warfighting, exercises and support activities.

Interagency, coalition government and non-governmental organizations also require this access to a battlespace if they are to act cohesively with a joint force. They need access to land, sea, and air facilities, transportation networks and access to spectrum in which to operate. This means they need "bandwidth on demand" to operate.

Unfortunately, there's not a lot of it to go around.

Non-integrated spectrum operations contribute to an incomplete operating picture, delayed commands, unknown locations, missed or wrong targets, unidentified friends, undetected enemy, lost supplies and electronic fratricide.

A family of spectrum capabilities will be needed to improve synchronization of these competing spectrum users. **A spectrum solution is needed that transforms current manually intensive spectrum operations. This solution must meet the requirements of a net-centric environment. It must be integrated, expeditionary, decentralized and flexible to improve decision superiority and force lethality.**

There's a full court press in the Department of Defense toward a Global Electromagnetic Spectrum Information System that can contribute to making this happen.

Experts from multiple military spectrum communities are brainstorming a way ahead to integrate operations, acquisitions and regulations into a family of systems that transform spectrum into net-centric operations. This integrates unit requirements, operational electromagnetic environments, host nation supportability, regulatory planning, force structures, equipment characteristics and database management. The goal is to achieve spectrum access thus providing real-time sensor-shooter spectrum de-confliction to U.S. forces.

The Joint Requirements Oversight Council recently approved the Initial Capabilities Document for the Global Electromagnetic Spectrum Information System and endorsed DISA as the lead agency for its development.

Bandwidth and spectrum domination are more important than ever before. **Technology continues to set the pace, and it must be embraced, developed and exploited by joint and coalition partners.**

The Air Force spectrum community will continue to engage in this monumental effort in its quest to aid warfighting efforts in the future.